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Intermarriage in a Divided Society: Ireland a Century Ago*

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Abstract

This paper explores the characteristics associated with marriages between Roman Catholics and members of other religious denominations in Ireland before the Great War. Using the entire digitized returns of the 1911 population census, we find that such marriages were relatively rare, occurring in less than one percent of total marriages. Some of this infrequency can be attributed to ethno-religious hostility—especially in the north of the country. However, we also show that the rarity of intermarriage reflects local marriage markets, as non-Roman Catholics living in communities with fewer coreligionists were more likely to intermarry. We examine the individual characteristics of partners in these marriages, looking at the religious denomination of their children, their decision to marry out, and their fertility behavior. Our findings illustrate how the frequency of intermarriage reflects historical levels of intolerance, but only after local marriage market conditions have been accounted for.

JEL-Classification: N83, J12, J13
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1 Introduction

In today's globalized world, the prevalence of marrying out is a measure of the acceptance of outsiders from contrasting and often distant backgrounds (Lucassen and Laarman, 2009; Chiswick and Houseworth, 2011; Lanzieri, 2012; Muttarak and Heath, 2010). In the past, the rarity of mixed marriages[1], as well as the taboos and legal prohibitions that limited them, reflected religious and ethnic separateness or hostility (Fryer, 2007; Voigtländer and Voth, 2013; Fisman et al., 2008; Hitsch et al., 2010). By the same token, the presence of families with mixed-religion siblings might be considered as a sign of social integration across religious groups.

The focus of this paper is on marriages in Ireland before the First World War between members of the Roman Catholic Church (RC or 'Catholics') and members of other churches, whom we dub for convenience OD (for 'Other Denominations'). The latter were overwhelmingly members of either the Church of Ireland or of non-conforming Protestant churches. Two aspects of Irish history since the Great Famine of the 1840s lend such marriages a particular resonance. First, long-standing sectarian tensions presumably limited their frequency and added to the difficulties faced by mixed-faith couples, while changes in their frequency reflected shifts in those tensions. Nineteenth-century Ireland was not a fertile ground for mixed marriages. Quite apart from the very real confessional tensions, Catholics tended to differ from non-Catholics in their politics, in their sporting and cultural pursuits, in where they were educated, in how they spoke, and in socioeconomic status (Campbell, 2009). Indeed, the issue of mixed marriages in nineteenth- and early twentieth-century Ireland was controversial enough to be the stuff of sensational court cases and literary fiction.[2] Sectarian

[1] Marriages between partners of different religions are normally referred to as 'mixed marriages' in Ireland. The phrase 'intermarriage' can confusingly relate to the same phenomenon or to endogamy, that is, marrying within one's family, tribe or clan. We use the two words interchangeably here.

[2] On mixed marriages in literary fiction see Ervine (1911), Hoult (1935), Foster (2008, pp. 140–143). The famous McCann case in Belfast in 1910, involving a Catholic male and Presbyterian female, resulted in demonstrations, debates in parliament, and an appeal to the Lord Lieutenant (*Irish Times*, 7 January 1911; 8 February 1911). For other controversies see *Irish Times*, 'Interesting mixed marriage', 15 September 1900; 'Sequel to a mixed marriage', 16 May 1905; 'Mixed marriage: Habeas corpus motion', 24 November 1905; 'Mixed marriage case: religion of the children', 3 August 1912.

animosity was particularly high when the prospect of Irish devolution beckoned, as in the mid 1880s, and also in the wake of the papal decree Ne Temere (1907) regulating Catholic marriages.[3] Moreover, the intensity of sectarian feelings and actions varied across the island, as it would during the Troubles in Northern Ireland during the late 1960s and 2000s, may have influenced the frequency of intermarriage.

The frequency of intermarriage reflects not just sectarian or ethnic tensions, but changing conditions in the marriage market as well. Walsh (1970b) has shown, by exploiting regional variations in the migration rate, how the relative scarcity of females reduced the marriage rate in twentieth-century Ireland. Similarly, post-famine emigration may well have influenced the incidence of mixed marriages, particularly in areas where females were more likely to leave than males. The very size of the human outflow from Ireland could have reduced the prospects of brides and grooms marrying coreligionists. Walsh's findings for Ireland anticipate more recent work by Abramitzky et al. (2011) for post-World War 1 France and by Voigtländer and Voth (2013) for twentieth-century Germany.

For reasons still debated by historians (Ford, 1997; Murray, 2009) the Protestant Reformation largely failed in Ireland. Still, the tensions spawned by it lasted longer in Ireland than anywhere else in Western Europe. During the twentieth century, however, the relationship between the RC and OD population appeared to follow two very distinct paths. The first, one of non-violent integration, was mostly observed outside the northern province of Ulster (the island of Ireland consists of four provinces). The second, one of intermittent violence culminating in virtual civil war during the Troubles, was, for the most part, confined to parts of Ulster. How those tensions influenced the frequency and character of cross-community

[3]The *Ne Temere* decree, issued in August 1907 and taking effect at Easter in April 1908, stipulated that for a Catholic's marriage to an OD to be valid it had to be witnessed by his or her parish priest or the priest's nominee (de Bhaldraithe, 1988; Buck, 2011). Contrary to widespread belief *Ne Temere* did not refer to the religious upbringing of children. Indeed, the stipulation that children should be raised as Catholics long predated *Ne Temere*. Pope Benedict XIV's encyclical *Magnae Nobis* (1748) demanded that 'children of both sexes born of the union [the mixed marriage] should be educated in the sanctity of the Catholic religion' (David Jameson, 'Letter to Editor', *Irish Times*, 19 Dec. 2013). Closer to home, the Synod of Thurles (1850) required that interfaith couples make a written undertaking that children would be raised as Catholics (Rafferty, 1994)

marriages is an issue with resonances for the ethno-religious composition of strife-torn areas in modern Northern Ireland and further afield.

In this paper we have used a unique data source to analyze the frequency and characteristics of marriages between Roman Catholics and members of other religious denominations during the half century or so before the Great War. This was a fraught period in Irish history, with competing orange and green nationalisms occasionally spilling over into violence and heightening sectarian tensions between Catholics and ODs. Our source, the recently-digitized household returns of the 1911 census, permits identification of all mixed marriage couples co-resident in Ireland on the census night, and reveals much about the incidence and characteristics of mixed marriages in the half-century or so before the census. It provides useful demographic and socioeconomic information on individuals and, unlike the 1901 census, it contains additional information on marital fertility. Importantly, these data also list the religious affiliation of the enumerated. This resource offers the prospect of addressing a series of questions about mixed marriages in Ireland. These include: how common were they? When did they occur? How did those who married out differ from the population at large? And what can be said about the religion of the children of such marriages?

In the next section of the paper we provide an overview of our data and analysis methodology. Section 3 calculates the frequency of mixed marriages, their spatial distribution, and their trend over time. In Section 4 we use our data source to identify the religion of the children born of mixed marriages. The economic, social, and demographic covariates associated with mixed marriages are explored in Section 5. Section 6 characterizes the fertility patterns of mixed marriages. We summarize our findings and highlight their importance in Section 7.

2 Data and Methodology

Figure 1 is a map of Ireland showing the four provinces: Leinster (East), Munster (South), Connacht (West), and Ulster (North). Within these provinces, Ireland is comprised of thirty-two counties. The northern province of Ulster consists of nine counties, six of which form Northern Ireland, established with the partitioning of Ireland in 1921. In 1911 Ireland, 79 percent of Ulster's population were enumerated in counties that would go on to form the Northern Irish state. This was the region most associated with sectarian feuds and the epicenter of the Troubles.

[Figure 1 about here.]

A century ago pre-partition Ireland contained 3.24 million Catholics with 1.15 million belonging to other religions. The Catholic share was always highest in Munster and Connacht. Table 1 describes the Catholic share of the population in Ireland's four provinces between 1861 and 1961.

[Table 1 about here.]

Thanks to the digitization of the 1911 census, the extent of mixed marriages before 1911 can be ascertained by looking at households where one spouse was a Catholic and the other was not at the date of the census.[4] The individual-level data from the 1911 census provides a rich source of information on the historic Irish population.However, the use of this source entails a number of caveats. Firstly, all of these data are self-reported. Budd and Guinnane (1991) have shown that this led to a biased age-distribution. However, this bias is most common amongst the very elderly, who are mostly excluded from our analysis. Another potential issue arises from the enumeration process. The census required each household to return an enumeration form listing all persons present in the household on Sunday the 2nd of April 1911. Thus, household members that were missing on the day of the census are

[4]We lack any information on marriages where the partners were initially of different religions at some point prior to the census but one converted to the partner's religion.

excluded from our data (but may have been surveyed in the household or institution where they were on Census night, for example as a visitor or hospital patient). This is a problem in so far as our main unit of analysis, the married couple, requires both the husband and wife to be under the one roof. Thankfully, the absence of spouses was rare, and from individual level reports we successfully matched 499,215 cohabiting married couples (where at least one of the partners is Irish born), or 944,950 married individuals amounting to almost the entire married population (BPP, 1912–1913). We linked our subset of intermarried couples to their children who were present in the household on the census day.

Not only does the 1911 census provide us with the population of married cohabiting couples, it also contains a wide range of individual demographic and economic characteristics. These characteristics include: age, number of years married (from which age at marriage can be inferred), literacy, number of children ever born/dead, and the husband's reported occupation. We have used the husband's reported occupation, which we classify to a HISCO code (van Leeuwen et al., 2002) and then a HISCAM index (Lambert et al., 2013).[5] These data also allow us to identify the household structure, and therefore examine the population of children born to intermarried couples. Additionally, since we are working with the entire census population we can retrospectively calculate potentially important regional variables. Here, our unit/region of analysis is at the district electoral division (DED) level, administrative areas with populations that consist, on average, of about 1,200 people. In this study, we will use the sex ratio (male population aged 15–45 divided by female population aged 15–45) and the % of married individuals who are RC as our measures of the community structure.

In general, we adopt the following econometric procedure. Firstly, any estimates or test statistics associated with the models have been adjusted to account for clustering at the DED level. Second, since one of our prime motivations is to uncover the spatial distribution of intermarriage, we split each analysis into four regional subsamples: Leinster, Munster,

[5]Although Ireland's historical occupations have not been classified by the HISCO project, we match these occupations to the corresponding HISCO codes for Great Britain. A complete repository of the HISCO project's occupational coding can be found at the following url: http://hisco.antenna.nl/. Details for the related HISCAM project are available at: http://www.camsis.stir.ac.uk/hiscam/.

Connacht, and Ulster—the four Irish provinces. Splitting these data into four separate subsamples may be unnecessary, and perhaps misleading, in some instances. To avoid this, we employ a model-based partitioning approach, applying an LM-type structural break test—appropriate to unordered categorical variables (Merkle et al., 2013)—in a recursive framework (Zeileis et al., 2008). Finally, we are aware that in each of our estimated regression models we test multiple hypothesis (two-sided hypothesis tests where the null hypothesis is always that the estimated coefficient is zero). If we use standard hypothesis tests with conventional p-values we may encounter Type I errors—rejecting the null hypothesis despite it being true.[6] To remedy this, we follow the approach advocated in Hothorn et al. (2008), that controls the Type I error rate in the presence of simultaneous comparisons by inflating the associated p-values for each hypothesis test by a factor related to how many hypothesis tests are being performed.

3 Incidence and Trends

Our database suggests that on the day of the 1911 census there were 499,215 co-resident married couples in Ireland. Table 2 shows the distribution of these couples classified by the religion of husband and wife. Mixed marriages comprised only 0.8 per cent of the total. However, they constituted 2.9 per cent of marriages where at least one partner was OD. Over 70 per cent of mixed marriages were marriages where the wife was RC and the husband OD.

[Table 2 about here.]

Our database suggests that on the day of the 1911 census only 3,947 out of 499,215—less than one percent—co-resident married couples comprised of Catholics married to ODs. Figure 2 illustrates trends in the frequency of mixed marriages, both as a percentage of the total number of married couples (the top panel) and of the total of married couples where at least one partner was from the an OD, that is excluding marriages where both partners

[6] We thank an anonymous referee for pointing this out.

were Catholics (the bottom panel). The temporal element is deduced from the 'number of years married' variable, so a couple married ten years will have wed in 1900 or 1901. The most recently married couples appear on the left of each plot. We create 'years married' categories to aid visualization, and stratify our trends by the four provinces. The top panel in Figure 2 re-emphasizes how rare mixed marriages were. In Leinster, which includes the large urban center of Dublin, they appeared to have increased after the 1860s and exceeded 1.5 percent of the total marriages in the late 1890s, but had begun to fall back by the early twentieth century. Elsewhere these trends appeared to be relatively stationary over time.

[Figure 2 about here.]

These small percentages related to the total population of married couples and belie the fact that relative to the size of the OD population, mixed marriages were quite significant outside Ulster, as is clear from the bottom panel of Figure 2. In Munster, for example, mixed marriage represented around 14 percent of the marriages in which one spouse was an OD at the start of the 20th century. In Leinster, this proportion fluctuated between 8 and 12 percent, if we look at couples married post-1860. In these areas the scarcity of OD partners may be credited with the relatively larger impact mixed marriages had on the minority religion.

Such percentages help place earlier studies of mixed marriages in twentieth century Ireland in historical perspective. Walsh (1970a, pp. 27–29) estimated that 30 percent of Protestant grooms, and 20 percent of Protestant brides, were married to Catholic partners in the Republic of Ireland in 1961. In other words, by 1961 one marriage in four involving a Protestant spouse was with a Catholic. The rise in the impact of mixed marriages on the minority population between 1911 and 1961 in the twenty-six counties is plausible in view of the absolute and relative decline in the OD proportion of the population—from 8.3 percent in 1911 to 5.1 percent in 1961 or from 313,000 persons in 1911 to only 130,126 persons in 1961. In Northern Ireland in 1971, however, only 1,177 out of a total of 76,009 Catholic

husbands, or 1.5 percent, were married to OD wives, while 2,434 out of 77,266 Catholic wives, or 3.75 percent, were married to OD husbands (Lee, 1985a, p. 69).

Walsh's estimates tally with those of O'Leary (1999, p. 126) who inferred from new data in the 1991 census that the proportion of native-born Protestants marrying Catholics in the Republic of Ireland rose from 6.1 percent before 1926 to 12.2 percent in 1942–1946 and 33.5 percent in 1962–1966. Thanks perhaps to the post-Vatican II liberalization of Catholic teaching in regard to inter-faith marriages the proportion rose further thereafter. O'Leary found that part of the reason for the rise in the proportion of partners recorded with different religions was a reduction in the post-marital conversion rate in more recent decades (one-half in the early 1970s, one-seventh in the mid-1990s). Urbanization and secularization also helped erode the barriers between Protestant and Catholics.[7]

The most striking feature of Figure 2 is the fall in Ulster's rank when we switch the denominator from all marriages to marriages where at least one partner is OD.[8] Relative to the OD population, mixed marriages in Leinster and Connacht were ten times more frequent than in Ulster. In the context of future ethno-religious tensions in Ireland, these findings highlight an important regional variation. Mixed marriages were the exception throughout 1911 Ireland. Outside Ulster, however, once we adjust for the size of the OD population, we find that mixed marriages were significant. This was not the case in Ulster, which contained a much larger OD population. In Ulster, mixed marriages were rare regardless of the comparison group. This finding is indicative of a much stronger disapproval of mixed marriages in Ulster—one of the consequences of heightened social tension between the religious groups, compared to the rest of Ireland.

[7] On patterns in Northern Ireland compare Morgan et al. (1996) and see too Harris (1972).

[8] In other words, when the incidence of mixed marriages is now calculated as:

$$\frac{\text{\# of Mixed Marriages}}{\text{\# of Marriages involving at least one OD partner}}.$$

4 Children's Religion

What religion mixed marriage parents choose for their children was a contentious issue. This choice sheds light on social integration preferences and also has long-run implications for the future ethno-religious composition of the population. Writing to a colleague in Rome in 1919, Joseph McRory, Catholic bishop of Down and Connor, claimed that mixed marriages represented a gain, since 'in fully nine out of ten cases it is the girl who is the Catholic, and in practically all such cases all the children are reared Catholics'. However, his colleague in the neighboring diocese of Dromore, Edward Mulhern, lamented that 'in this protestant place mixed marriages have been in the past the cause of many losses to the church; but they will go on' (cited in Harris, 1993, p. 38 fn. 31). Our census data contains data on the family structure of each household and we can identify the children, and thus see their religion, of intermarriages.

[Table 3 about here.]

The children of mixed marriages tended to be raised as Catholics, especially when the mother was a Catholic. Table 3 shows the religion recorded for the children of mixed marriages who were enumerated in the household on the night of the census. Seventy per cent were RC. This majority varied from a low of 54 per cent of the girls whose mother was OD to a high of 78 per cent for girls whose mother was RC. These differences are statistically significant—a chi-squared test rejects the null hypothesis that there is no association between the child's and the mother's religion. The results corroborate the finds of a study by Martin Maguire for a sample of Dublin parishes and also support his contention that *Ne Temere* 'probably only introduced compulsion into a process that was already established of the children of such marriages becoming Catholic' (Maguire, 1993, p. 50).

Table 3 helps place our earlier findings on the incidence of intermarriage and the decline of the Protestant population in 20th century Ireland into context. With the exception of Ulster, a substantial proportion of the OD population married out. In such mixed marriages,

the children were far less likely to be OD. Therefore, the significant decline of the OD population outside of Ulster (mainly the six counties of Northern Ireland) shown in Table 1 is understandable given the connection of these two elements in the Irish demographic regime. There is an apparent difference between Ulster and the rest of Ireland. To probe this issue further, we perform a regression analysis wherein our outcome is a binary variable indicating if the child of an intermarriage is Catholic. We regress this on a selection of demographic and socio-economic characteristics related to the child and their parents. Since our outcome variable is binary, we estimate a probit model and calculate marginal effects to aid our interpretation of the impact of each coefficient. Our analysis is performed on regional subsamples, which are chosen by a recursive partitioning algorithm (as discussed in Section 2).

[Table 4 about here.]

Table 4 displays the marginal effects from the estimated probit models. The recursive partitioning algorithm detects a regional split, in line with our prior belief, between Ulster and the rest of Ireland. The first column of Table 4 provides marginal effect estimates for Ireland excluding Ulster. In this column, we see a repeat of the pattern listed in Table . On average, we know children are more likely to be RC rather than OD. Using Girls with an OD mother as our reference group (this group has the lowest probability of being RC), boys with an OD mother are the second least likely to be RC. The roles are reversed when the mother is RC, as in this instance girls are more likely to be RC than boys. The effect of having an RC mother overshadows all other marginal effects reported in Table 4. The estimated effect is 74 percent for girls and around 48 percent ($0.74-0.26$) for boys. In summary, after taking into account the large influence that mother's had in determining their child's religion regardless of gender, girls/boys were following their mother's/father's religion respectively.

This gender-maternal religion nexus is far less prominent in Ulster, as evidenced by comparing the first and second columns. The most striking difference between Ulster and the rest of Ireland is in the marginal effect associated with having an RC mother: 0.285, in

comparison to 0.746 for the rest of Ireland. Our figures show that 62 per cent of mixed marriage children were RC compares with 75 per cent outside Ulster. Mixed marriage children were less likely to be RC in Ulster regardless of gender or which parent was OD/RC. The parent's religion appears to still matter in Ulster, as girls were more likely to follow their mother's religion and boys were more likely to follow their father. The reduced probability of a mixed marriage child being RC in Ulster (despite around 75 percent of all mixed marriage mother's being RC) is most likely a function of the increased sectarian tension. This tension manifested in labor market and other forms of discrimination (primarily) against Catholics in Ulster. Considering this environment, one can understand why the religious decision to choose the RC faith for their children may have been met with greater reluctance in here.

Table 4 also includes a rich set of covariates accounting for demographic and socioeconomic factors. Apart from maternal literacy, none of the marginal effects indicate that these additional variables were important influences in mixed marriage parent's decision of their child's religion. In Ulster, maternal literacy was negatively correlated with the likelihood of the child being RC. This is perhaps indicative of a greater awareness amongst literate mother's of the potential problems faced by RC children in this province.

5 Characteristics of Mixed Marriages

Did the men and women who married out marry up (to a partner of higher socioeconomic status) or down? O'Leary (2001) surveys the US sociological literature; similar questions have also generated a considerable economics literature (Becker, 1991; Chiswick and Houseworth, 2011; Chiappori et al., 2012; Banerjee et al., 2013; Abramitzky et al., 2011). In the case of Jewish/non-Jewish marriages it has been suggested that while Jews in early twentieth-century United States were a low status group, some 'Jewish men were able to marry "up" in status while Jewish women were less able to do so' (Pagnini and Morgan 1990, p. 424; compare Baber 1937, p. 710). Recent work by Banerjee et al. (2013) analyzed intra-caste

marriages in modern India and found that preferences for marrying within one's caste outweigh non-caste (economic) attributes. More generally, one might expect males to trade their higher economic position for personal characteristics (such as beauty and youth) that they find attractive in a prospective partner (Becker, 1973, 1991). Abramitzky et al. (2011) used exogenous variation in the sex ratio caused by First World War mortality to study the relationship between marriage market conditions and demographic outcomes. They show how an exogenous change in the relative scarcity of men reduced the marriage prospects of women from lower economic strata.

In the context of late 19th and early 20th century Ireland, one expects that intermarriage was determined by a blend of economic and non-economic concerns. We have already seen (in Section 3) how the reduced supply of same religion partners increased intermarriage rates outside Ulster (compare Abramitzky et al. (2011); Voigtländer and Voth (2013)). This finding echoes the existing literature on the characteristics of mixed marriages within historical Ireland, which have suggested, albeit without any rigorous empirical analysis, that OD males from the higher socioeconomic backgrounds traded their relatively high economic status to marry an RC bride. O'Leary (2001) posits that 'where social exchange takes place it will be especially a feature of marriages between women who rank high on a non-economic characteristic and men who rank low on that non-economic characteristic but who have a high economic level.' O'Leary (2000) found that the superior social status of Protestants enabled working-class Protestant women to marry up.

Here we explore the characteristics of those who decided to marry out in Ireland over a century ago. To do this, we model the probability of a mixed marriage as a function of individual demographic and socioeconomic characteristics and local marriage conditions. Our individual covariates include both partners' age at marriage, literacy, and the husband's HISCAM score. To measure local marriage market conditions we use percentage of RC marriages in the district electoral division (DED) and the sex ratio. Since intermarriage was a rare event (occurring in less than 1 percent of all marriages) we estimate the relationship

using a logit regression model and use odds ratios to interpret the model coefficients.[9] We look at the following four demographic cohorts separately: RC women, OD men, RC men, OD women, so we are comparing both sexes' decision to marry out relative to those of the same religion and gender who did not marry out (but still married). As before, we expect regional distinctions to be important and thus apply our model based recursive partitioning algorithm to stratify each of the four analyses by province.

We saw that mixed marriages constituted about 0.8 per cent of all marriages and that marriages between an RC wife and an OD husband accounted for 73 per cent of these. We modeled separately the odds that a man or woman would marry a person of different religion for four dependent variables, namely:

- RC wives married to OD husbands (Table 5)
- OD husbands married to RC wives (Table 6)
- OD wives married to OD husbands (Table 7)
- RC husbands married to OD wives (Table 8).

Table 5 shows the relevant results for RC women, where each regression was estimated on a sample of marriages wherein the wife was RC—so intermarriage is indicated by the decision of the the RC wife to marry an OD husband instead of RC. Table 5 reports the odds ratios for four regression models as the recursive partitioning algorithm indicating that the estimated coefficients were different enough from one another to warrant separation. That Ulster was the first province to be partitioned from the potential province groupings is telling. Despite the partitioning algorithm detecting differences at a global level that justify these splits, many of the reported odds ratios appear to be stable across the provincial subsamples. For

[9]The odds ratios are multiplicative effects and tell us, relative to a baseline, how a one unit increase in any variable effects the odds of the event occurring (in this case mixed marriages). For example, an odds ratio of 2 indicates that a one unit increase in the variable in question doubles the probability of the outcome (even if the event is rare). Therefore, an odds ratio of less than one indicates that the variable in question is negatively associated with the occurrence of the outcome.

example, the variable on the religious composition of the location where the couple live (% of RC Marriages in DED) is negatively associated with intermarriage.[10] The larger the share of Catholics the less likely a RC woman is to marry an OD. This result may represent a preference for marrying within one's own faith, however, it is more likely to capture the fact that an RC woman will have less opportunity to meet an OD partner if there is a smaller presence of ODs in the area (especially outside Ulster). The sex ratio variable—measuring the male to female (aged between 15 and 45) population ratio—appears to be unrelated to the propensity to intermarry.

[Table 5 about here.]

Some stark differences exist between Ulster and the rest of Ireland in the other factors. Outside Ulster, if an RC woman would intermarry she would do so at a younger age, and her OD husband was more likely to be literate and, in most cases, have a more prestigious occupation. Thus, outside Ulster, RC women tended to marry up in mixed marriages. In Ulster, there is little evidence that this occurred because mixed marriage RC wives, who themselves were less likely to be literate, married OD men with less prestigious occupations.

[Table 6 about here.]

Table 6 displays the equivalent results when we look at intermarriage from the perspective of OD males. Here, the recursive partitioning scheme detects three model subsamples: Ulster, Leinster-Munster, and Connacht. As in Table 5, we find that the percentage of RC marriages in the DED is strongly positively correlated with the probability of observing a mixed marriage. However, in this instance the correlation is positive—the more RCs in the community the more chance there is to marry out. The differences between the provinces here is not as apparent as the other table found. OD men are less likely to marry literate spouses, but they themselves are less likely to be literate and more likely to be occupied in

[10] An odds ratio of less than one indicates a negative correlation.

a lower ranked profession. Hence, there is more evidence supporting the horizontal marital preferences amongst those in low socioeconomic status groups for OD men. However, in Leinster-Munster we see that when OD males did intermarry, they married younger RC brides, as possible indication that they traded their more prestigious religious class to secure a more youthful (which can be considered a proxy for beauty) bride.

[Table 7 about here.]

We now turn our attention to the less common RC husband-OD bride marriages. Table 7 reports the odds ratios calculated from a regression of intermarriage on our selection of covariates for samples consisting of married OD women. Similar to Table 6, Table 7 detects splits between Ulster, Leinster-Munster, and Connacht (although the number of observations in the Connacht is relatively small, resulting in quite imprecise model estimates). Outside Ulster, the number of Catholics in the DED is positively related to the propensity for OD women to intermarry. This finding is in keeping with our previous results and also Walsh (1970b), who highlighted that the supply of potential partners was key to the integration of the OD population in 20th century Ireland. That this relationship was muted in Ulster, where the supply of OD men was much larger, is also consistent with this view. Furthermore, in Leinster and Munster, the sex ratio also appears to have influenced mixed marriages. An increase in the sex ratio (rise in men relative to women) reduced the likelihood of mixed marriage for OD women. Based on Abramitzky et al. (2011), we expect a rise in the sex ratio to increase the bargaining power of women in the marriage market. These results indicate that OD women had a preference for OD men in Leinster and Munster.

Generally, we find that if an OD woman intermarried, it tended to be later than her OD counterparts. This suggests either that OD women were prepared to trade off some their higher status religion to delay marriage or that it was OD women who could not successfully find an OD partner who then had to settle for an RC husband. Given that their partners were less likely to be literate and more likely to have an occupation with lower socioeconomic

prestige, one might think that this was a case of OD women intermarrying down. In Leinster-Munster, this observation has some merit because intermarried OD women did not differ in terms of literacy from the population of OD women married to OD men. The same is not true in Ulster, where we find a more horizontal marriage pattern—illiterate OD women were more likely to marry out to illiterate men with less prestigious professions.

[Table 8 about here.]

Finally, Table 8 examines RC males. Like our analysis of RC females, we find that our partitioning framework detects four inter-provincial splits. In this analysis we find that the local supply of Catholic partners matters, so the more RC a DED is, the smaller the probability of mixed marriage becomes for Catholic men. In cases where RC men married out, they married older wives compared to their RC contemporaries who married younger Catholic wives. Outside of Ulster, is was Catholics with more illustrious professions who intermarried OD women, who in turn were more likely to be literate. This horizontal marriage marriage pattern is also observed in Ulster, but from a different base, as RC husbands were in employed in marginally less esteemed jobs and their OD wives were less like be literate (although we cannot reject the null hypothesis in for this coefficient).

The above analysis highlights a number of important common elements which predicted the likelihood of intermarriage in 1911 Ireland. Firstly, we observed how marrying out is associated the supply of partners at a local level. For Catholics, who were nearly always in the majority outside Ulster, this meant they did not need or have the opportunity to marry out. For the OD population, this meant that they had less opportunity to marry a fellow OD partner. Thus, the restricted supply encouraged mixed marriage and assimilation in the manner posited in Walsh (1970b). Similarly, in Leinster, Munster, and Connacht RC women who married out, married up, trading their relative youth for higher socioeconomic partner. In Ulster, the same is not true, as we see mixed marriages occurring amongst less socioeconomically advanced partners. Given the result for RC women, one might expect OD men who marry out to marry down. However, when compared with the wider OD population,

we see that these OD men are themselves less likely to be from a lower socioeconomic standing. When we turn our attention to the less common OD wife-RC husband mixed marriages we find that they were more likely to feature couples of the same social class, with the exception of Leinser-Munster where OD women were more likely to marry down relative to their female OD equivalents.

While these results help us to distinguish some important elements associated with intermarriage in 1911, a number of caveats should be entered. Celibacy was an important facet of the early twentieth century Irish demographic landscape (Guinnane, 1997; Connell, 1968) but we do not attempt to model the choice between intermarriage and celibacy here—including it as a potential alternative decision would complicate matters.[11] Another potential drawback regards the location, or DED, where we observe each couple. Where each married couple lives is endogenous, and thus they may select to live in a certain area based on characteristics that are related to the intermarriage decision. Similarly, we cannot claim that any of our explanatory variables in these regressions represent proximate causes of intermarriage. Therefore, the issue of endogeneity looms. One potential approach to solving this issue is to use instrumental variables. Another, as advocated in Altonji et al. (2005) is to use assumptions about the observed characteristics and their expected relationship to intermarriage, alongside functional form assumptions, to estimate causal effects. Given the number of explanatory variables in our application, for which we are interested in uncovering the conditional distribution that connects them to the probability of intermarriage, we do not pursue either a conventional IV methodology or the strategy proposed in Altonji et al., instead we leave this avenue open for future research.

6 Fertility in Mixed Marriages

The marital fertility gap between RCs and ODs in Ireland in the past has been the focus of research and debate. RCs tended to have larger families than ODs, with potential rami-

[11] For example, we would not be able to distinguish between late marriage and life-long celibacy.

fications for the population shares of both groups (Walsh, 1970a; Ó Gráda, 2008; Ó Gráda and Walsh, 1995). In this section we extend previous research by comparing the fertility of mixed marriages to that of both the RC and OD populations.

[Figure 3 about here.]

Figure 3 plots the point estimates, with 95 per cent confidence intervals, of the average number of children born (as indicated on the census form) to the four types of marriages (OD husband—OD wife, OD husband—RC wife, RC wife—OD husband, RC husband—RC wife), stratified by province. In all provinces, marriages between a Catholic husband and wife had the largest families. In Connacht, Leinster, and Ulster the smallest families were those between an RC husband and an OD wife. Finally, mixed marriage where the wife was Catholic tended to adopt the fertility of marriages where both parties were OD, especially in Leinster and Munster. However, before we attach any importance to these unconditional comparisons we investigate these relationships using a formal econometric model that accounts for a host of potential confounding variables.

[Table 9 about here.]

[Table 10 about here.]

Tables 9 and 10 report the conditional relationship between mixed marriages (both types) and fertility (the recorded number of children born to the wife).[12] This conditional relationship is modeled using a Poisson regression, estimated, as indicated by the recursive partitioning framework, on marriages from the four provinces.[13] Table 9 uses observations from all marriages, whereas Table 10 only uses the population of marriages where at least one of the partners is OD. The omitted category in either regression is thus: "All OD Marriage".

[12]We have removed some observations here from the previous analyses because they had been married less than three years.

[13]In earlier work with comparable data (Guinnane et al., 2006; Ó Gráda, 2006, 2008) model similar count data using the negative binomial regression model. We do not use that approach here but note that we avoid the problem of underestimating the parameter's variances by adjusting the model's estimated variance-covariance matrix to account for clustering at the DED level, and thus arbitrary heteroskedasticity.

Our concern with the results shown in Figure 3 is that they may reflect demographic and social factors that are simultaneously correlated with both fertility and the propensity to marry out. Thus, our regressions are motivated by the necessity to remove this confounding variation. Since biology is typically the most important predictor of marital fertility in historical demography (for obvious reasons), we include control variables for marital duration and the ages of both spouses. We also include the number of non-surviving children as a regressor to capture the replacement effect, that is the extent to which couples seek to replace children who die. As before, the husband's HISCAM score and literacy are proxies for socioeconomic status. We control for whether marriages were all-RC and neighborhood (DED) characteristics: % of RC marriages in the the DED and the sex ratio.

The results in Tables 9 and 10 are consistent with the patterns we observe in Figure 3. The fertility of mixed marriage couples is dramatically lower than the rest of the population in Ulster. The estimated marginal effects indicate that, on average, a mixed marriage wife will give birth to around half a child less than the general population, all else equal. Elsewhere in Ireland, this negative difference is also evident, albeit less amplified.

The striking difference may indicative of the general public disapproval of mixed marriage, particularly in Ulster, where sectarian tensions ran high. Having fewer children avoided the contentious decision surrounding children's religion. Furthermore, the potential alienation and ostracization experienced by mixed marriages could have removed the wider, non-nuclear, family network, important for child raring in historical societies. In this sense, the higher psychic costs of mixed marriage fertility translated into lower fertility. Intermarriage is successfully used a proxy measure of tolerance between groups in a population (Voigtländer and Voth, 2013). What our finding here suggests, is that tolerance and inter-community tension can, in addition to the incidence of intermarriage, be measured by looking at the demographic behavior within these intermarriages, and how close they link, or distance, themselves to the general population.

7 Conclusion

Our exploration of the recently digitized 1911 Irish population census has revealed much about the incidence and character of mixed marriages in pre-World War 1 Ireland. Mixed marriages were rare, particularly so in the northern province of Ulster, despite its large OD population. Elsewhere in Ireland, mixed marriages, although still the exception, were relatively more common. This difference is particularly apparent when the focus is placed the propensity of members of the OD community to marry out, using the OD population as the denominator. Thus in greater Dublin one-in-eight of marriages where one or more of the partners was a non-Catholic was a mixed marriage. Everywhere in Ireland, the Catholic party in a mixed marriage was much more likely to be the wife. In general, when a mixed marriage occurred, it was most likely to be between a younger RC wife and an older OD husband. This suggests that OD men may have traded their superior economic status to gain a younger RC wife. However, our statistical analysis of how the mixed marriage partners differed from the majority revealed that the strength and even the direction of predictors like socioeconomic status varied substantially across regions, most notably between Ulster and the rest of Ireland. Whereas across most of the island the partners in a mixed marriage tended to be from higher social strata in Ulster they were more likely to involve people from humbler backgrounds.

Our analysis of the fertility of mixed marriages revealed some interesting patterns. Within Ulster mixed married couples had smaller families than either RC or OD couples, a result we interpret as highlighting the social penalty associated with marrying across the religious divide. Outside Ulster, where sectarian feelings were less pronounced, the marital fertility patterns of mixed marriage couples closely resembled that of the OD community. In addition to the greater propensity to christen their children as Catholics, mixed marriage couples had fewer children, so even if the children were christened OD there were fewer of them. This pattern undoubtedly played a role in the decline of the OD population in twentieth century Ireland.

Our findings have broad implications for Irish demographic history, but also hold resonance further afield. We validate the use of intermarriage as a historical measure of sectarianism, but echo the concerns expressed by other researchers regarding the importance of the marriage market and the relative supply of coreligionist partners. Our analysis also demonstrates how historical intermarriage patterns can anticipate future episodes of violence and civil conflict. We believe that similar analyses, for example in the Balkans or Middle East, would be illuminating and represent a worthy topic for future research.

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Table 1: Catholics as a Percent of Total Population in 1861, 1911, and 1961

Province	1861	1911	1961
Leinster	85.9	85.2	93.6
Munster	93.8	94.0	97.3
Connacht	94.6	96.2	98.1
Ulster	50.5	43.7	41.7

Sources: Central Statistics Office, Census of Population, Historical Series, http://www.cso.ie/en/census/census20021996resultsandearliercensuses/historicalreports/; Northern Ireland Statistical Research Agency, 1821 to 1911 Census Reports, http://www.nisra.gov.uk/census/previous-census-statistics.html.

Table 2: Married Couples Recorded in 1911 Census by Religion of Spouse

		Religion of Wife		
		RC	OD	Total
Religion of Husband	RC	363,617	1,075	364,692
	OD	2,872	131,651	134,523
	Total	366,489	132,726	499,215

$\chi^2(1, N = 499,215) = 479,318.3$, $p < 0.001$.

Table 3: Percentage of Children of Mixed Marriages Recorded as RC Classified by Religion of Parents

	Religion of Mother (%)		
	OD	RC	Total
Boys	66	68	67
Girls	54	78	72
Total	60	73	70

H_0: No association between child's religion and mother's religion, $\chi^2(1, N = 8835) = 116.986$, $p < 0.01$.

Table 4: Religion is RC, Children from Intermarriage. Probit Marginal Effects

	(1)	(2)
RC Mother	0.746^{***}	0.285
	(0.125)	(0.174)
Male	0.123^{***}	0.127^{**}
	(0.028)	(0.041)
Male × RC Mother	-0.262^{***}	-0.196^{***}
	(0.036)	(0.047)
Father's Occupation HISCAM Score	0.004	0.003
	(0.002)	(0.003)
Literate Father	−0.019	0.028
	(0.066)	(0.051)
Literate Mother	0.116	-0.143^{**}
	(0.074)	(0.043)
Mother's Age	0.003	0.001
	(0.003)	(0.004)
Father's Age	−0.002	−0.001
	(0.003)	(0.004)
Age	−0.003	0.002
	(0.001)	(0.003)
% of RC Marriages in DED	0.003	−0.001
	(0.001)	(0.002)
Father's Age at Marriage	0.001	−0.001
	(0.003)	(0.004)
Ne Temere Effect	0.011	0.008
	(0.020)	(0.026)
Father's Occupation HISCAM Score × RC Mother	-0.006^{*}	−0.003
	(0.002)	(0.003)
% of RC Marriages in DED × RC Mother	−0.002	0.004
	(0.001)	(0.002)
Leinster	Yes	No
Munster	Yes	No
Connacht	Yes	No
Ulster	No	Yes
Num. obs.	4945	2879

Standard Errors are clustered at the DED level and the p-values have been adjusted to account for multiple comparisons using the single-step method. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

Table 5: Intermarriage between RC Wife and OD Husband. RC Wife Only Sample. Logit Model Odds Ratios

	(1)	(2)	(3)	(4)
Husband's Age	0.999	0.992*	1.012	0.997
	(0.003)	(0.003)	(0.009)	(0.005)
Husband's Age at Marriage	0.992	1.004	0.999	0.991
	(0.005)	(0.005)	(0.018)	(0.009)
Wife's Age at Marriage	0.993	0.972***	0.941**	0.967***
	(0.006)	(0.007)	(0.019)	(0.010)
Husband's Occupation HISCAM Score	0.976***	1.029***	0.948*	1.006
	(0.005)	(0.005)	(0.019)	(0.008)
Literate Husband	1.220	3.616***	6.824***	5.790***
	(0.109)	(0.609)	(3.103)	(1.566)
Literate Wife	0.666***	1.122	1.291	1.217
	(0.065)	(0.130)	(0.480)	(0.259)
% of RC Marriages in DED	0.958***	0.965**	0.918***	0.911***
	(0.004)	(0.012)	(0.008)	(0.007)
Sex Ratio ×100	0.994	0.991	0.988	0.995
	(0.006)	(0.011)	(0.008)	(0.006)
Leinster	No	Yes	No	No
Munster	No	No	No	Yes
Connacht	No	No	Yes	No
Ulster	Yes	No	No	No
Num. obs.	74992	108772	67914	107519
Num. RC Wife Intermarriages	1068	1134	101	452

Standard Errors are clustered at the DED level and the p-values have been adjusted to account for multiple comparisons using the single-step method. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

Table 6: Intermarriage between RC Wife and OD Husband. OD Husband Sample Only Sample. Logit Model Odds Ratios

	(1)	(2)	(3)
Husband's Age	0.985***	0.984***	0.997
	(0.003)	(0.002)	(0.010)
Husband's Age at Marriage	1.013*	1.004	1.010
	(0.005)	(0.005)	(0.018)
Wife's Age at Marriage	0.991	0.970***	0.961
	(0.006)	(0.006)	(0.021)
Husband's Occupation HISCAM Score	0.962***	0.970***	0.933***
	(0.005)	(0.003)	(0.018)
Literate Husband	0.659***	0.921	1.401
	(0.065)	(0.179)	(0.749)
Literate Wife	0.378***	0.267***	0.179***
	(0.043)	(0.042)	(0.081)
% of RC Marriages in DED	1.018***	1.027***	1.049***
	(0.003)	(0.007)	(0.015)
Sex Ratio ×100	0.992	0.994	0.989
	(0.007)	(0.006)	(0.009)
Leinster	No	Yes	No
Munster	No	Yes	No
Connacht	No	No	Yes
Ulster	Yes	No	No
Num. obs.	107674	20930	2504
Num. OD Husband Intermarriages	1068	1586	101

Standard Errors are clustered at the DED level and the p-values have been adjusted to account for multiple comparisons using the single-step method. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

Table 7: Intermarriage between RC Husband and OD Wife. OD Wife Sample Only Sample. Logit Model Odds Ratios

	(1)	(2)	(3)
Husband's Age	0.987	0.994	0.999
	(0.005)	(0.004)	(−1.644)
Husband's Age at Marriage	1.003	0.983	0.986
	(0.010)	(0.008)	(−2.260)
Wife's Age at Marriage	1.031**	1.021*	0.997
	(0.010)	(0.008)	(2.532)
Husband's Occupation HISCAM Score	0.969***	0.982***	0.951
	(0.006)	(0.005)	(−3.871)
Literate Husband	0.422***	0.254***	0.258
	(0.061)	(0.051)	(−6.832)
Literate Wife	0.568***	1.131	0.643
	(0.083)	(0.347)	(0.402)
% of RC Marriages in DED	1.006	1.024***	1.093*
	(0.003)	(0.007)	(3.424)
Sex Ratio ×100	0.996	0.988**	1.003
	(0.005)	(0.005)	(−2.731)
Leinster	No	Yes	No
Munster	No	Yes	No
Connacht	No	No	Yes
Ulster	Yes	No	No
Num. obs.	106979	19932	2446
Num. OD Wife Intermarriages	373	588	43

Standard Errors are clustered at the DED level and the p-values have been adjusted to account for multiple comparisons using the single-step method. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

Table 8: Intermarriage between RC Husband and OD Wife. RC Husband Only Sample. Logit Model Odds Ratios

	(1)	(2)	(3)	(4)
Husband's Age	1.002	1.002	1.016	1.009
	(0.005)	(0.005)	(0.013)	(0.008)
Husband's Age at Marriage	0.984	0.983	0.972	0.962
	(0.010)	(0.008)	(0.021)	(0.016)
Wife's Age at Marriage	1.035***	1.029***	0.979	1.009
	(0.010)	(0.009)	(0.024)	(0.017)
Husband's Occupation HISCAM Score	0.982*	1.036***	0.970	1.050***
	(0.007)	(0.006)	(0.027)	(0.013)
Literate Husband	0.794	1.370	1.579	1.926
	(0.105)	(0.288)	(0.713)	(0.560)
Literate Wife	0.929	4.610***	3.791	2.593*
	(0.128)	(1.705)	(2.839)	(1.000)
% of RC Marriages in DED	0.944***	0.967***	0.932***	0.907***
	(0.004)	(0.010)	(0.013)	(0.006)
Sex Ratio ×100	0.998	0.980*	0.998	0.992
	(0.004)	(0.008)	(0.012)	(0.005)
Leinster	No	Yes	No	No
Munster	No	No	No	Yes
Connacht	No	No	Yes	No
Ulster	Yes	No	No	No
Num. obs.	74297	108062	67856	107231
Num. RC Husband Intermarriages	373	424	43	164

Standard Errors are clustered at the DED level and the p-values have been adjusted to account for multiple comparisons using the single-step method. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

Table 9: Number of Children Ever Born. Poisson Marginal Effects

	(1)	(2)	(3)	(4)
Intermarriage with RC Husband	-0.453^{***}	-0.280	-0.011	-0.737
	(0.119)	(0.155)	(0.211)	(0.424)
Intermarriage with OD Husband	-0.478^{***}	-0.103	-0.147	0.257
	(0.070)	(0.078)	(0.123)	(0.334)
All RC Marriage	0.267^{***}	0.539^{***}	0.784^{***}	0.790^{***}
	(0.018)	(0.030)	(0.044)	(0.055)
Number of Children Dead	0.539^{***}	0.521^{***}	0.555^{***}	0.571^{***}
	(0.006)	(0.007)	(0.006)	(0.007)
Husband's Age at Marriage	-0.010^{***}	-0.006^{***}	-0.004	-0.003
	(0.001)	(0.002)	(0.002)	(0.001)
Wife's Age at Marriage	-0.151^{***}	-0.145^{***}	-0.153^{***}	-0.172^{***}
	(0.003)	(0.004)	(0.003)	(0.003)
Marital Duration	0.459^{***}	0.431^{***}	0.509^{***}	0.477^{***}
	(0.010)	(0.015)	(0.022)	(0.023)
Marital Duration^2	-0.119^{***}	-0.111^{***}	-0.128^{***}	-0.107^{***}
	(0.004)	(0.007)	(0.010)	(0.010)
Marital Duration^3	0.010^{***}	0.009^{***}	0.010^{***}	0.007^{***}
	(0.001)	(0.001)	(0.001)	(0.001)
Husband's Occupation HISCAM Score	0.009^{***}	0.008^{***}	0.016^{***}	0.024^{***}
	(0.002)	(0.001)	(0.001)	(0.002)
Literate Husband	0.029	0.068^{*}	-0.001	0.129^{***}
	(0.022)	(0.024)	(0.024)	(0.024)
Literate Wife	0.151^{***}	0.299^{***}	0.276^{***}	0.188^{***}
	(0.019)	(0.024)	(0.033)	(0.026)
% of RC Marriages in DED	0.006^{***}	0.010^{***}	0.028^{***}	0.016^{***}
	(0.001)	(0.003)	(0.005)	(0.003)
Sex Ratio $\times 100$	0.007^{*}	0.005	0.008^{***}	0.003^{*}
	(0.002)	(0.002)	(0.002)	(0.001)
Leinster	No	Yes	No	No
Ulster	Yes	No	No	No
Munster	No	No	Yes	No
Connacht	No	No	No	Yes
Num. obs.	165126	111162	102389	65062

Standard Errors are clustered at the DED level and the p-values have been adjusted to account for multiple comparisons using the single-step method. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

Table 10: Number of Children Ever Born. OD Only Sample. Poisson Marginal Effects

	(1)	(2)	(3)	(4)
Intermarriage with RC Husband	-0.466^{***}	-0.322	-0.079	-0.684
	(0.112)	(0.134)	(0.175)	(0.316)
Intermarriage with OD Husband	-0.496^{***}	-0.214^{**}	-0.247	-0.115
	(0.068)	(0.069)	(0.096)	(0.225)
Number of Children Dead	0.541^{***}	0.544^{***}	0.577^{***}	0.562^{***}
	(0.007)	(0.019)	(0.020)	(0.038)
Husband's Age at Marriage	-0.016^{***}	-0.012^{***}	-0.007	-0.001
	(0.001)	(0.004)	(0.005)	(0.007)
Wife's Age at Marriage	-0.144^{***}	-0.120^{***}	-0.132^{***}	-0.164^{***}
	(0.004)	(0.007)	(0.007)	(0.009)
Marital Duration	0.433^{***}	0.351^{***}	0.392^{***}	0.416^{***}
	(0.016)	(0.013)	(0.023)	(0.033)
Marital Duration^2	-0.111^{***}	-0.093^{***}	-0.096^{***}	-0.097^{***}
	(0.007)	(0.006)	(0.009)	(0.012)
Marital Duration^3	0.009^{***}	0.008^{***}	0.007^{***}	0.007^{***}
	(0.001)	(0.001)	(0.001)	(0.001)
Husband's Occupation HISCAM Score	0.003	-0.012^{***}	-0.009^{***}	-0.013
	(0.001)	(0.002)	(0.003)	(0.006)
Literate Husband	-0.007	0.042	-0.017	0.081
	(0.028)	(0.119)	(0.246)	(0.218)
Literate Wife	0.127^{***}	0.532^{***}	0.710^{*}	-0.104
	(0.025)	(0.126)	(0.239)	(0.224)
% of RC Marriages in DED	0.006^{***}	0.004	-0.011	-0.003
	(0.001)	(0.003)	(0.006)	(0.005)
Sex Ratio $\times 100$	0.005	0.005	0.011^{***}	0.014^{***}
	(0.002)	(0.002)	(0.003)	(0.004)
Leinster	No	Yes	No	No
Ulster	Yes	No	No	No
Munster	No	No	Yes	No
Connacht	No	No	No	Yes
Num. obs.	97827	14237	5074	2348

Standard Errors are clustered at the DED level and the p-values have been adjusted to account for multiple comparisons using the single-step method. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

Figure 1: The Four Provinces of Ireland

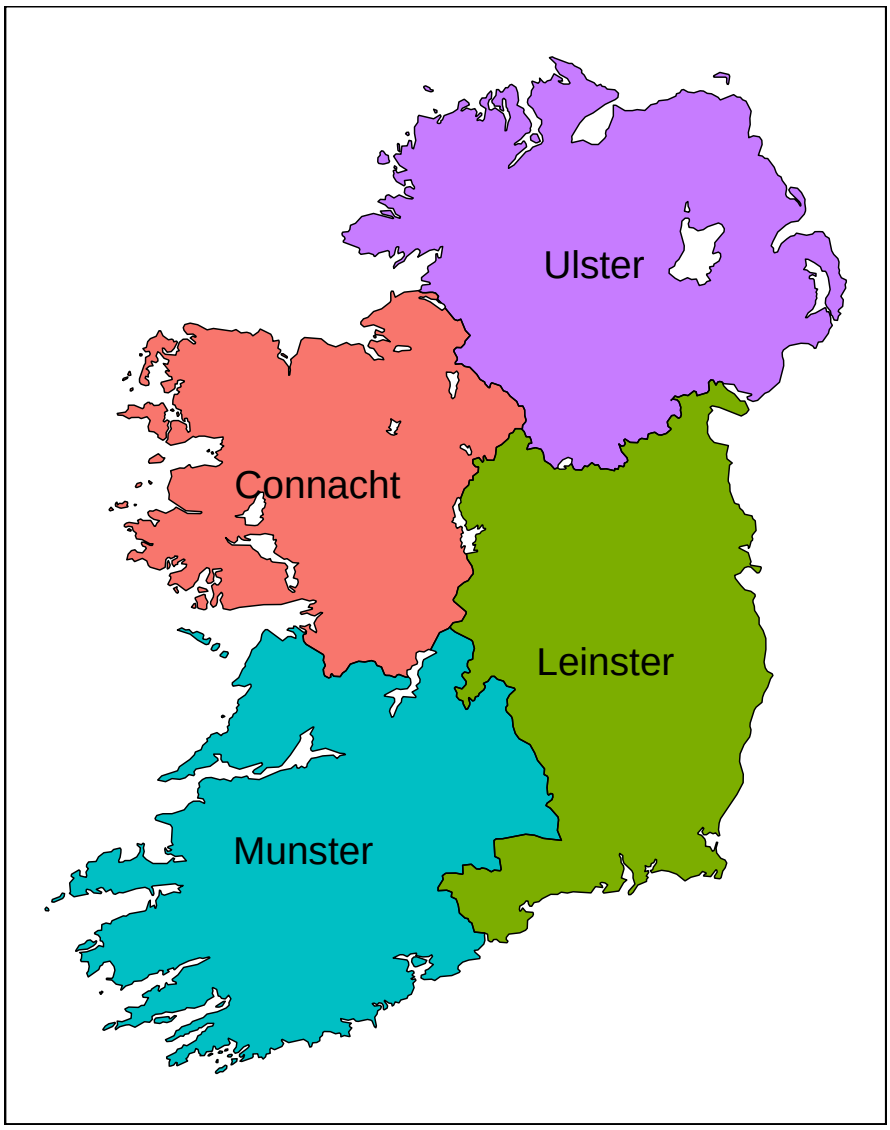
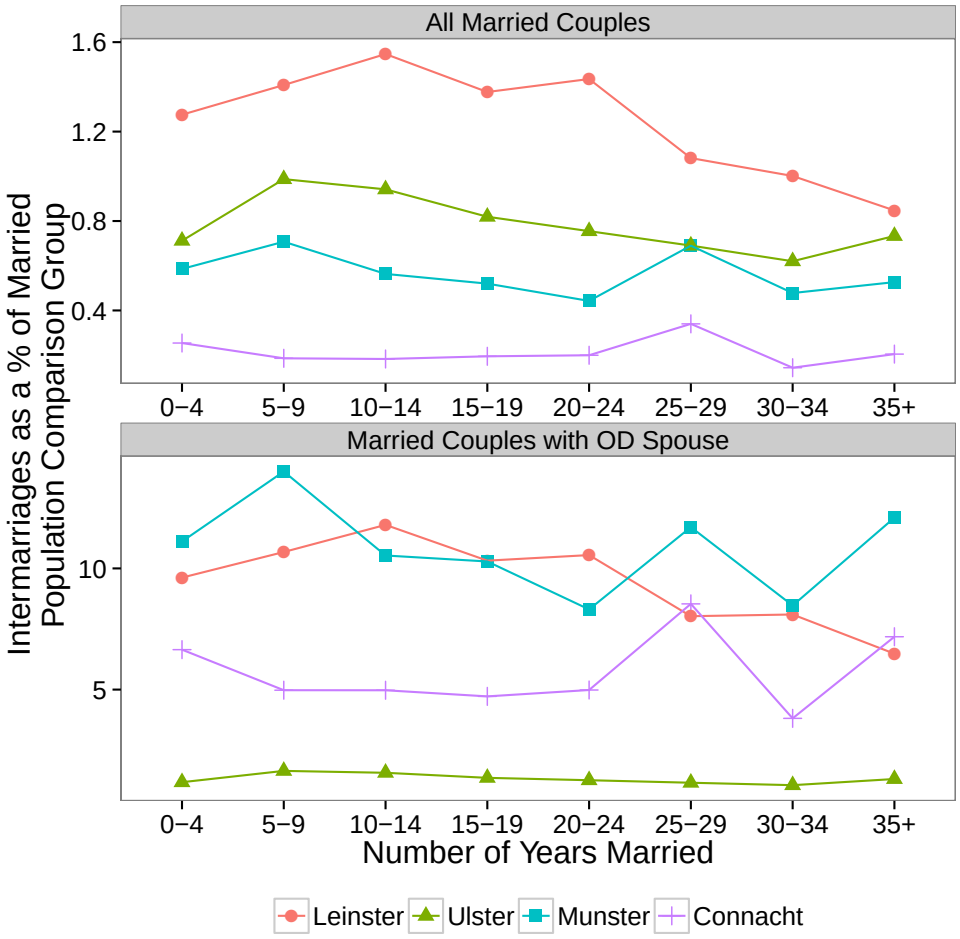
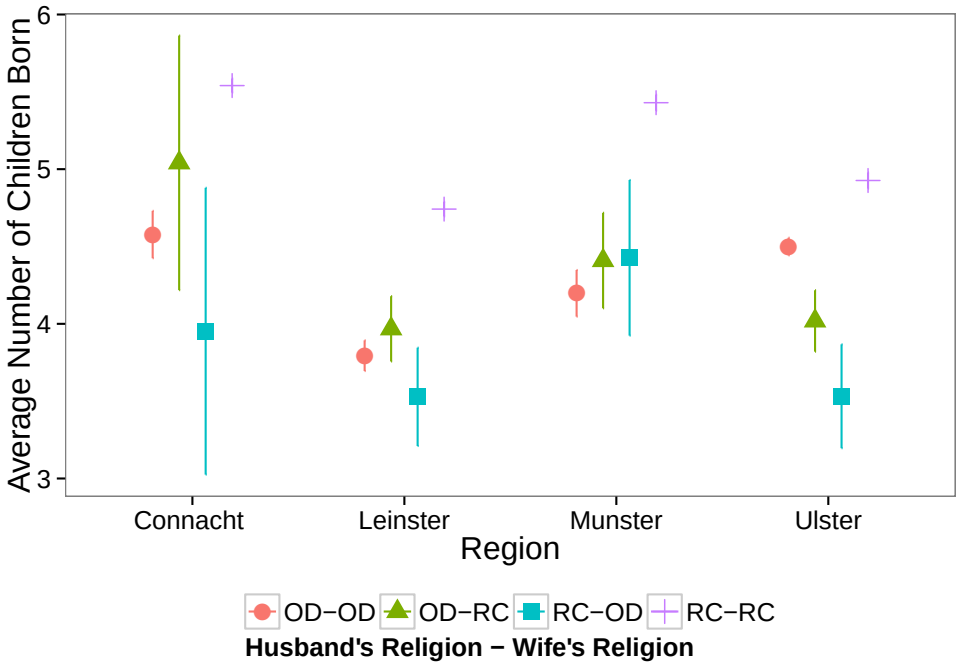


Figure 2: Intermarriages by Year of Marriage Cohort



Source: Individual returns from 1911 Census of Ireland.

Figure 3: Marital Fertility Stratified by Religious Marriage Type and Province



Note: The points represent the average number of children born, whilst the vertical lines illustrate the 95% confidence interval (clustered at the DED level). Source: Individual returns from 1911 Census of Ireland.